

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021028**Date Inspected:** 23-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhou Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG COMPONENT**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Subhasis Bera was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

In process Inspection

Trial Assembly

This QA Inspector observed the following work in progress:

SMAW in the 3G position for the OBG Segment 12BW to 12CW ,weld No. OBW12E-001. The welder is identified as #040611. ZPMC QC is identified as Mr. Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-3G(3F)-REPAIR-FCM-1. The weld repair report is identified as WR20193. The welding variables were recorded at, Amperage 150, volts 24.5.The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 1G position for the OBG Segment 12BW to 12CW ,UT repair weld No. OBW12C-001. The welder is identified as #046709. ZPMC QC is identified as Mr.Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-1G(1F)-REPAIR-FCM-1.The weld repair report is identified as WR20263. The welding variables were recorded at, Amperage 172, volts 25.4.The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 2G position for the OBG Segment 12BE, UT repair weld No. CA3003-006. The welder is identified

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

as #044504. ZPMC QC is identified as Mr. Wang Li Yang. The welding variables recorded by QC appear to comply with WPS-345-SMAW-2G(2F)-FCM-REPAIR-1. The weld repair report is identified as CWR2808. The welding variables were recorded at, Amperage 164, volts 24.5. The In-process SMAW appears to be progressing in compliance with approved contract documents.

CWR verifications (CWR2811R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B – CWR2811 R0 at 900 hours the following was observed:

- The component for verification was identified as OBE12C-001 (12BE to 12CE Bottom panel field splice weld @ D6)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-1G(1F)-FCM-Repair-1, WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2812 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2812 R0 at 900 hours the following was observed:

- The component for verification was identified as OBE12E-003 (12BE to 12CE side panel field splice weld @ C5)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-3G(3F)-FCM-Repair-1, WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2813 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2813 R0 at 900 hours the following was observed:

- The component for verification was identified as OBE12A-003 (12BE to 12CE Deck panel to Deck panel splice weld @A1)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-1G(1F)-FCM-Repair-1, WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2814 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2814 R0 at 900 hours the following was observed:

- The component for verification was identified as SEG3002A-001, SEG3003A-011 (12BE to 12CE Side panel to

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Bottom panel butt weld @ E3)

- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-3G(3F)-FCM-Repair-1,
WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2815 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2815 R0 at 900 hours the following was observed:

- The component for verification was identified as SEG3002A-004, SEG3003A-013 (12BE to 12CE Edge panel to Side panel corner weld @ E4)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-1G(1F)-FCM-Repair-1,
WPS-345-SMAW-4G(4F)-FCM-Repair-1

Ultrasonic Testing (UT) at trial Assembly area

This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as OBG segment 12AE, 12BE and 12CE weld joints.

The weld designation reviewed is as follows:

SP3017-001-041
SP3018-001-042
SP3019-001-047
SP3005-001-034
DP3012-001-025
EP3002-001-013
SEG30001V-051
SEG3001X-051
DP3005-001-028
DP3007-001-028
DP3016-001-009
DP3018-001-009
SEG3002M-017
SEG3002N-017

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

ZPMC personnel performing SMAW for UT repair
splice weld joint CA3003-006 at 2G position on
Deck plate of segment 12BE at Trial Assembly area



Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera,Subhasis	Quality Assurance Inspector
Reviewed By:	Dsouza,Christopher	QA Reviewer
